WATER QUALITY TEAM MEETING NOTES

October 9, 2001
National Marine Fisheries Service Offices
Portland, Oregon

Introductions and Review of the Agenda.

Mary Lou Soscia of EPA and Mark Schneider of NMFS, WQT co-chairs, welcomed everyone to the meeting, held October 9 at the National Marine Fisheries Service offices in Portland, Oregon. The meeting was facilitated by Richard Forester. The meeting agenda and a list of attendees are attached as Enclosures A and B. Please note that some of the enclosures referenced in these meeting notes may be too lengthy to routinely attach to the minutes; please contact Kathy Ceballos (503/230-5420) to obtain copies.

1. Policy Overview of Biological Opinion Performance Standards and Water Quality.

Gary Fredricks led this discussion, first distributing a memo titled "Biological Performance Standards." This memo describes the performance goals and standards included in the 2000 FCRPS BiOp, by ESU, as well as how the three-tier performance standard system will work. Fredricks spent a few minutes going through this document, Enclosure C; please refer to this memo for details of Fredricks' presentation.

Fredricks emphasized that the hydro performance standards are only one component of the full package of standards included in the BiOp. He noted that it is important to understand that the implementation of flow deflectors will be used to increase spill volumes in and survival through the hydrosystem, not simply to reduce dissolved gas production. As bypass system performance improves, Fredricks said, it will probably be possible to reduce those spill volumes somewhat.

Is there a potential conflict between the BiOp performance standards and the TMDL development and fixed monitoring station evaluations? asked Jerry McCann. No, Soscia replied – we're working hard to ensure that no conflict arises. If there is going to be any repositioning of monitors, said Schneider, it will take the form of installing additional monitors, not simply moving monitors from one location to another.

Soscia noted that, during the BiOp consultations, EPA negotiated a commitment to balance the achievement of biological performance standards and Clean Water Act standards, and a commitment on the part of the action agencies to make steady progress toward achieving the CWA standards. Paul Pickett devoted a few minutes of discussion to the various goals of the Clean Water Act and the Endangered Species Act, as well as the role of monitoring in their implementation.

2. Report on Review and Comments of the Interagency Clean Water Act Compliance Preliminary Draft Project Management Plan.

Schneider said Dick Cassidy had planned to provide a report on the draft Project Management Plan (PMP); however, that document has now been superceded by a water quality plan to be developed by the NMFS, EPA and the Corps, due to concerns expressed at the Federal Caucus about the water quality planning called for in the BiOp. It was agreed at the last Caucus meeting that the scope of the water quality planning effort goes beyond RPAs 5 and 130-143, Schneider said; the water quality plan needs to reflect that larger scope. The plan, which will be known as the Columbia/Snake River Mainstem System Water Quality Plan, will include the water quality-related activities necessary to avoid jeopardy, monitoring and evaluation, the TMDL process, and "other" – Clean Water Act studies and plans, for example.

Schneider said several key policy issues have been identified in association with the water quality planning effort, including which agencies will be involved in its development, how often it will be issued and when it will be updated. We have now had an opportunity to discuss those policy issues with the policymakers in our agencies, and will soon be in a better position to address and resolve them, said Schneider. Soscia said she and Dave Ponganis will be producing a written description of what the water quality plan will look like, and will distribute it to the WQT membership as soon as it is available, possibly in time for discussion at the next WQT meeting.

3. Report and Technical Discussion on RPA Action 132 (Dissolved Gas Fixed Monitoring Stations Camas/Washougal) 2001 Study Results.

Joe Carroll provided a briefing titled "TDG Exchange and Transport, Bonneville Dam June 8-22 Field Study Results." He distributed Enclosure F, a packet containing results from the study, which was intended to assess the representativeness of the water quality monitoring stations downstream of Bonneville Dam, as well as the conclusions drawn from the study. Carroll touched on the background for the study, study objectives, the study approach, spill conditions and operations during the study, the instruments used, parameters studied and data logging frequency, the study area, the instrumentation array, meteorological effects, a sampling of the water quality data collected during the study, wind-related TDG response, and changes in TDG resulting from naturally-occurring processes downstream of Bonneville Dam. Carroll then offered the following study conclusions:

The wide temporal variability in TDG saturation at the Camas/Washougal FMS can be

attributed to the following:

- TDG pressures arriving at Bonneville Dam,
- Spillway flows generate high TDG pressures,
- Powerhouse cycling generated variation in the percentage of total river flow spilled,
- Temperature change results in TDG pressure change,
- Dissolved oxygen cycling was caused by community metabolism,
- Atmospheric pressure cycling,
- Wind-generated TDG exchange,
- Subtle spatial variations in TDG saturations were observed in the Columbia River near the Camas/Washougal fixed monitoring station,
- During spillway releases, the highest TDG pressures were generally located in mid-channel,
- Without spillway releases, the highest TDG pressures were generally observed in the littoral region near the channel banks,
- Range in spatial TDG saturation as defined by the daily average of the 12 highest hourly observations was only 1%-2% saturation,
- Since a high degree of temporal variability in TDG occurs in both the shallow water or littoral zones and the deeper mid-river zones with only minimal spatial differences, then only limited benefits (in meeting the objectives of a TDG fixed monitoring station) could be expected from relocating the Camas/Washougal FMS,
- Tailwater fixed monitoring stations sample TDG conditions in a developing mixing zone – TDG levels are muted by location in re-circulation zones, ambiguous TDG measure highly dependent on project operation, poor estimate of TDG saturations generated in spillway flows, FMS siting is inconsistent with most tailwater FMS in the Columbia River basin, and
- Since neither SKAW nor WRNO meet the requirements for a tailwater nor for a downstream mixed river TDG FMS station location, suggest the spillway channel to be a better or more consistent location in meeting the requirements of a tailwater TDG FMS.

It seems to me that what this says is that our original supposition was probably wrong, Schneider said – that there was a problem at Camas/Washougal, and that we know what it is. After hearing Joe's presentation, it now sounds as though, wherever we put a fixed monitoring station, we're going to run into these problems, so Camas/Washougal is probably about as good as we're going to get, Schneider said. I think that's a fair characterization, at least for this reach, Carroll replied – to me, the real value of this study is the insight it gives us into the magnitude of the variability that may occur.

So what's the bottom line in this effort? asked Dennis Rohr. The goal was to answer the following five questions, Schneider replied:

- Based on the established purposes for the fixed monitoring stations and the known variability associated with point measures of total dissolved gas, is re-evaluation of siting (alternative or additional sites) the TDG FMS downstream of Bonneville Dam warranted?

- Is the inherent natural variability and measurement precision observed in the Camas/Washougal station data acceptable, resolvable?
- If site re-evaluation is not warranted then are there acceptable means of coping with the observed influences on the total dissolved gas monitors?
- If site re-evaluation is warranted then what are the guidelines for alternatives or added site selection?
- How might these questions and answers apply to the rest of the TDG FMSs elsewhere in the Columbia/Snake River basin?

Schneider added that the WQT's fixed monitoring station evaluation subgroup will be meeting again soon, in an effort to bring closure to this project. John Yearsley said he and Ben Cope would like to be involved in that meeting; Schneider said he would welcome their participation, adding that he will organize the subgroup meeting and will report back at the next WQT meeting.

Soscia observed that she is still unclear about the ultimate goal and end product this subcommittee is going to produce or satisfy, adding that, until this is clarified, she is reluctant to have Yearsley participate in the subgroup. Satisfying RPA 132 is the end-point, Schneider replied.

4. Update on Columbia/Snake Gas and Temperature TMDLs.

Soscia began her portion of this presentation by distributing Enclosures D and E, a fact sheet titled "Improving Water Quality on the Columbia/Snake Mainstem – An Introduction" and a letter describing the upcoming public information TMDL workshops in Lewiston (on October 29) and Pasco (on October 30), respectively. Soscia spent a few minutes going through these documents, encouraging anyone interested in learning more about the TMDL development process or the status of the TMDL effort to visit the EPA website at http://www.epa.gov/r10earth/columbiamainstemtmdl.htm.

Soscia described EPA's efforts to work with the Spokane and Colville Tribes, as well as the Western Governors' Association, as TMDL development pushes ahead.

Paul Pickett described his professional background with WDOE and Thurston PUD. He then described the current status of the TMDL development effort, noting that Russell Harding has already produced and distributed a very early draft of the dissolved gas TMDL for the Lower Columbia River. Since then, there was a series of public meetings in July, Pickett said; there were a number of questions and comments provided at those meetings, which we are in the process of trying to answer. The schedule for the completion of the TMDL has been pushed back to accommodate that process; our hope is to distribute a new draft at the meetings later in October, with a formal comment period in October, Pickett said.

Some of the key issues and questions we're attempting to address include the way dissolved gas will be measured for the purpose of assessing TMDL compliance, cumulative effects and the impact

of upstream gas levels, the question of voluntary vs. the various types of involuntary spill, what the appropriate margin of safety should be, the role of changes in air temperature and barometric pressure in dissolved gas production, he continued. Pickett noted that, overall, the TMDL will be heavily weighted toward compliance and implementation, and will also emphasize adaptive management.

Russell Harding observed that, with respect to the question about potential conflicts between the TMDL and other water quality-related efforts, Oregon and Washington are working on an implementation plan that will allay many of those concerns. This is an important issue, and merits extensive continuing discussion, said Soscia. We should have a draft of the implementation plan ready for WQT and agency review within a month or so, Pickett added.

In response to a question, Soscia said the draft Lower Columbia dissolved gas TMDL will be released for comment in February or March 2002. The draft gas TMDL for the Columbia and Snake Rivers above the confluence will be completed by December 2002. The temperature TMDL is scheduled for completion by the end of 2002.

5. Report on Chief Joseph Flow Deflectors.

Schneider reminded the group that the deflectors that had been scheduled for installation at Chief Joseph did not receive any funding in the FY'02 budget. Marion Valentine reminded the WQT that the project was eliminated because of a Congressional moratorium on new-start construction projects. I understand there are a number of people who are interested in pursuing restoration of the $800,000 needed to get the project underway, Valentine said, but given recent events, I don't know how likely that is. Schneider noted that there is some hope that the Chief Joseph flow deflector program may be restored through the "economic stimulus" package currently proposed in Congress. He added that any agencies, PUDs, states or tribes with an interest in seeing the Chief Joseph flow deflectors go forward should make their feelings known to the Northwest congressional delegation.

6. Next WQT Meeting Date.

The next meeting of the Water Quality Team was set for Tuesday, November 13. Meeting notes prepared by Jeff Kuechle, BPA Writer-Editor pool.